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fragment or variant thereof, wherein the complement of the variant nucleic acid molecule hybridizes to the nucleic acid molecule of SEQ ID NO:13 or 19 under stringent conditions of 0.2 X SSC and 0.1 percent SDS at a temperature of 55-65°C [encodes one or more conservative amino acid substitutions and optionally one or more amino acid deletions], and wherein the fragment or variant has telomerase catalytic activity.

Please cancel claims 34 and 35 without prejudice.

# REMARKS

As a preliminary matter, Applicants note the Examiner mailed the Official Action dated 27 December 1999 (paper number 16) to Applicants' old address. Applicants would appreciate the Examiner updating her file to reflect the current address for Applicants which is:

Amgen Inc.  
US Patent Operations/NAO  
MS 27-4-A  
One Amgen Center Drive  
Thousand Oaks, CA 91320-1799

Please send all future correspondence to this address.

Claims 1-21, 26-30, and 33-35 are currently under consideration. Applicants thank the Examiner for allowing claims 1-21, 28-30, and 33. Applicants acknowledge and agree with the Examiner's statement that claims 22-25 and 31-32 remain withdrawn from consideration and have not yet been cancelled.

Claims 26, 27, 34, and 35 stand rejected. Claims 26 and 27 have been amended herein, and claims 34-35 have been cancelled.

Claim 26 has been amended to delete the phrase "wherein the variant nucleic acid encodes one or more conservative amino acid substitutions and optionally one or more amino acid deletions" and to recite the "90 percent identity" language which is found in allowed claim 1 section (f).

Claim 27 has been amended to delete the phrase "encodes one or more conservative amino acid substitutions and optionally one or more amino acid deletions" and to recite the "hybridization under stringent conditions" language of allowed claim 1 section (h).

Both claims 26 and 27 have been further amended to clarify the phrase "nucleic acid" by adding the word "molecule".

No new matter is added by these amendments.

#### **Rejection Under 35 USC, Section 112, First Paragraph**

Claims 26-27 and 34-35 have been rejected under 35 USC, Section 112, First Paragraph, as allegedly not enabled by the specification. According to the Examiner, the specification does not provide enablement for catalytically active variants. The Examiner further asserts that the skilled artisan could not practice the embodiment of the invention directed to catalytically active variants as Applicants have not sufficiently defined the structure of the enzyme so as to teach where in the molecule one might make deletions without sacrificing catalytic activity.

Claims 34 and 35 have been cancelled herein thus rendering the rejection moot with respect to these claims.

Applicants respectfully disagree with the Examiner's position, as Applicants have in fact provided ample disclosure regarding the structure of the molecule. For example, on page 70, line 36 and page 71, lines 1-10 of the specification, Applicants set forth the region of the molecule containing the reverse transcriptase motifs, as well as other regions of the molecule considered to be important. With this information in hand, the skilled artisan would readily know which regions of the molecule are amenable to deletion while likely retaining catalytic activity.

In the interest of clarity, Applicants have amended claim 26 to delete the phrase "wherein the variant nucleic encodes one or more conservative amino acid substitutions and optionally one or more amino acid deletions" and have inserted therefor the phrase "wherein the variant nucleic acid molecule

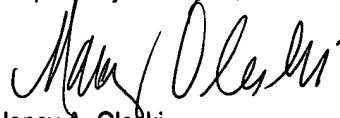
encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO:14 or 20 as calculated using the computer algorithm FASTA with the default opening and gap penalties and the scoring matrix PAM 250". As amended, this claim incorporates language in allowed claim 1. Applicants direct the Examiner to the definition of "variant" in the specification on page 15, lines 18-31, which provides that "variant" includes both amino acid deletions and/or substitutions.

Also in the interest of clarity, claim 27 has been amended to delete the phrase "encodes one or more conservative amino acid substitutions and optionally one or more amino acid deletions" and to add a description of specific hybridization language.

Applicants respectfully request reconsideration and removal of the rejection under 35 USC §112, First Paragraph.

Applicants believe that claims 26 and 27 are in condition for allowance, and a notice to that effect is solicited.

Respectfully submitted,



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Please send all future correspondence to:

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